pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

SOUTHWEST REGIONAL OFFICE
CLEAN WATER PROGRAM

NPDES PERMIT FACT SHEET ADDENDUM

Application Type	**Renewal**	Application No.	**PA0217778**
Facility Type		APS ID	**738098**
Major / Minor	**Minor**	Authorization ID	**861501**

Applicant and Facility Information

Applicant Name	**Keyrock Energy LLC**	Facility Name	**Dawson TP**
Applicant Address	106 Ferrell Avenue Suite 5	Facility Address	Street Rte 711 201 Vanderbilt Road
	Kingsport, TN 37663-2371		Connellsville, PA 15425
Applicant Contact	Russell Cook	Facility Contact	
Applicant Phone	(423) 726-2070	Facility Phone	
Client ID	273855	Site ID	610096
SIC Code	1389	Municipality	Dunbar Township
SIC Description	Mining - Oil And Gas Field Services, Nec	County	Fayette
Date Published in PA Bulletin	April 20, 2013	EPA Waived?	No
Comment Period End Date	May 20, 2013	If No, Reason	Receives O&G Wastewater
Purpose of Application	Application for a renewal of an NPDES permit for discharge of treated .		

Internal Review and Recommendations

This permit is being published in draft for a second time to amend the Part C condition related to Chapter 95.10- Total Dissolved Solids Loading.

Comments were received from the Environmental Protection Agency on May 8, 2013 on the second draft of the permit. Below are the comments with response:

According to the Water Quality Protection Report (WQPR), the water quality calculations for Osmotic Pressure (OP) assumed a background value of 0 (zero). Although we recognize that the outcome would likely be the same regarding any need for a WQBEL, we feel an assumed background of zero is not appropriate. We have seen in similar situations the use of background TDS levels converted into OP. Please revisit your OP background assumption accordingly and revise the WQPR and draft permit as appropriate.

Upstream concentrations of osmotic pressure or total dissolved solids were not available at this location. The permittee is not required to supply upstream concentrations with their permit application. Therefore, because data was not available, an upstream concentration of zero was assumed. The Department concurs with EPA's contention that the outcome would likely be the same if background data was used in the calculations. (The stream flow to discharge flow ratio is large). Because of this large ratio, a water quality based effluent limitation for OP is not necessary. Therefore, the permit will remain the same.

Part C.I.E. of the draft permit discusses OP. However, there is no monitoring requirement for OP in Part A.

Approve	Return	Deny	Signatures	Date
			Elizabeth A. Farley / Environmental Engineering Specialist	July 24, 2013
			Kareen A. Milcic, P.E. / Environmental Engineer Manager	
			Samuel C. Harper / Program Manager	

Internal Review and Recommendations

Please add OP monitoring in Part A of the permit.

Part C.I.E. gives a definition for OP. This was added in error and is unnecessary. Due to the large stream flow in comparison to the discharge flow there is no need for an OP WQBEL or monitoring requirement, as discussed above. The definition of OP in Part C.I.E. will be removed from the permit and Part A will remain the same.

We recognize the small instream waste concentration that this discharge creates. However, the high concentration of TDS (over 11,200 mg/L based on 561 lbs/day at 6,000 gals/day) allowable under the exemption from Chapter 95.10 indicates the possibility of high concentrations of chlorides, sulfates or other pollutants. Chloride is already included in the draft permit, however, we also recommend monitoring of other pollutants common in oil and gas extraction wastewaters, such as sulfate and bromide.

Coalbed methane production water is characteristically different from other natural gas extraction wastewaters. Essentially a coal seam is dewatered in order to extract the entrapped natural gas. Therefore, it has different properties than other natural gas wastewaters such as those found in the shale natural gas industry. Both sulfate and bromide were reported to be believed absent on the permit application. The Department conducted sampling at coalbed methane facilities in December 2011 to fully characterize the wastewater and both bromide and sulfate were present at low concentrations. The maximum concentration of bromide detected was 28.15 mg/L and the maximum concentration of sulfate detected was 12.18 mg/L. There is no water quality criterion for bromide. The water quality criterion for sulfate is 250 mg/L applied at the nearest downstream potable water supply intake which is 36.18 miles downstream from the discharge location. Based on this information the Department has determined that monitoring for bromide and sulfate is unnecessary.

No other comments were received. Permit issuance is recommended.